

Value Stream Mapping (VSM) Participant Workbook

-- Enter Process/Intervention Name--





TABLE OF CONTENTS

	<u>Page</u>
❑ VSM Agenda/Schedule	3
❑ Team Process Norms	4
❑ VSM Roles	
• Sponsor	5
• Manager	5
• Task Team Member	6
• Data Manager	6
• Caucus Group Member	6
❑ VSM Charter	
• Definitions & Description	7
• Your VSM Charter	10
❑ VSM Current State	
• Worksheet: Visualize the Process to be Mapped	11
• What is Lean?	12
• Overview of Two-Day VSM Process	14
• Description of Two-Day VSM Process	15
• Worksheet: Value vs. Non-Value-Added	17
• Worksheet: Value vs. Non-Value-Added Activities	18
• Working with Data Sheets	19
• Guide for Completing the Data Sheet	20
• Data Sheet Definitions	22
• Worksheet: Current State Mapping	23
❑ Working towards the VSM Future State	
• The Eight Wastes	25
• Worksheet: Identifying Wastes, Applying Lean Concepts	27
• Using Lean Concepts to Transform Your Current State to your Future State	28
• Worksheet: Identifying Worksite Wastes	31
• Worksite Waste: Information Collection Form	32
❑ VSM Future State	
• Worksheet: Future State Mapping	33
• Worksheet: Implementation Plan	34
• Implementation Plan Template	35
❑ VSM Follow-Up Activities	36

Appendices

❑ Value Stream Mapping Measurements	
• Current State Summary Data Calculations	38
• Future State Map and Final Data Calculations	39
• Completing the VSM Implementation Plan	39
❑ VSM Summary Statistics: Template	40
❑ VSM Data Sheet: Template	41
❑ BTC/Departmental Goals & Outcomes	42
❑ VSM Process: My Experience & Suggestions	43



(LOCATION, DATE)

AGENDA

Task:

A. To begin collectively and methodically examining how work is done and design ways to improve it.

B. To begin developing a continual improvement and process work mindset, including a growing knowledge and practice in this approach and available tools that can be used in everyday work.

Each team will:

- ❖ Create an identity as a team
- ❖ Develop a shared understanding of the current state process
- ❖ Create a shared image of the future state process
- ❖ Develop an implementation plan that the team will commit to carry out together.
- ❖ Measure, document, and communicate the team's work.

Intervention Name:

Day One: __/__/__

Day Two: __/__/__

8:00 • Start-up • Team Charter 9:00 • Current State: Steps 9:30 • Input: Key Concepts 10:00 • Break 10:15 • Data Sheets 10:30 • Current State Map 12:00 • Lunch (on your own)	8:00 • Start-up • Check-in 8:15 • Review Current State 8:45 • 8 Wastes & Lean Concepts 9:15 • Future State VSM (Team) 10:15 • Break 10:30 • Future State Map - continued 12:00 • Lunch (on your own)
12:30 • Current State Map - continued 2:15 • Break 2:30 • Continue & Finish Mapping 3:45 • Review Current State Data 4:00 • Checkout 4:30 • Adjourn ~~~~~	12:30 • Finish Future State Map 2:00 • Future State Calculations 2:15 • Break 2:30 • Implementation Plan 4:15 • Wrap-up/Feedback & Adjourn ~~~~~

Team Process Norms for Learning

- ❑ Use "I" – speak for yourself.
- ❑ Be open to different points of view.
- ❑ What is said here, stays here ... "Take the learning, not the story."
- ❑ Actively listen:
 - Paraphrase what you hear.
 - Ask questions – be curious.
 - Clarify understanding.
 - Summarize what you hear.
- ❑ Share what you know and say how you feel.
- ❑ Demonstrate respect.
- ❑ Leave your title at the door.
- ❑ Turn off your cell phone (or, if you must respond to emergencies, put in *vibrate* mode).
- ❑ Assume all aspects of a step are important for the team to consider.
- ❑ Speak your truth, even if your voice shakes.
- ❑ Make assumptions explicit.
- ❑ Manage time and tasks.
- ❑ Be responsible for your own learning. Make statements about what you want.
- ❑ Support others to get their learning needs met.
- ❑ "Play" with new ideas, approaches, behaviors, etc. (experiment).



Intervention Team Roles

Sponsor

The process improvement Sponsor has primary oversight responsibility for the process team and process project, for enabling implementation of the change/action plan, and for removing barriers to change, as well as assuring coordination with larger organizational goals, including meeting customer needs and demands.

- Has primary oversight of the process selected to be mapped.
- Attends intervention/implementation meetings as needed to support the team.
- Facilitates the initial convening of the Team.
- Selects or approves the selection of the Manager.
- Communicates the relationship between project's goals and higher organizational goals.
- Develops or Approves the charter of the team, including meeting with the facilitator to review charter prior to intervention training.
- Monitors development and implementation progress:
 - Reviews metrics at regular intervals.
 - Facilitates course corrections as needed.
- Acts as resource to Team as requested by team.
- Clarifies decision-making authority and boundaries with Manager.
- Communicates implementation status with the BTC Steering Committee.
- Facilitates conflict negotiation at boundary interfaces.
- Commits to learning and continuous improvement.
- Removes barriers to improvement change.

Manager

In addition to any team member role he/she might have, the process improvement Manager has overall operational and program responsibility for the process team, project, and implementation activities,. This includes enabling and tracking progress of change activities, facilitating forward movement, and assuring the implementation of the change/action plan.

- Assigns responsibilities to team members as appropriate.
- Ensures priorities are maintained.
- Keeps focus on implementation plan.
- Models good meeting management.
- Ensures team charter is complete and approved by Sponsor.
- Facilitates team problem-solving.
- Elevates issues, concerns, and accomplishments to Sponsor.
- Maintains accurate records, data, and metrics.
- Reports and communicates results at regular intervals.
- Keeps Sponsor and other stakeholders informed and updated.
- Facilitates team learning.
- Maintains consensus decision-making.



Team Member

The process improvement Team Member has responsibility for committing to operational process and program improvement as an intrinsic part of his/her work. (*It is the work !*) This includes actively participating as a member of the work process team, supporting change and the implementation of improvements, and continually seeking to improve performance and meeting the needs of customers.

- Attends and participates fully in the full VSM work session or other intervention.
- Attends and participates fully in a two-day or longer Kaizen event, as needed. (Date as determined.).
- Attends and participates in monthly/other team meetings as needed (face-to-face, conference calls, or internet).
- Completes activities/assignments per the agreed-upon implementation plan created by the team itself.
- Develops, assesses, and monitors metrics and makes adjustments to plan as needed.
- Negotiates current workload and expectations with immediate supervisor.
- Communicates team results and learnings periodically. Keeps the Sponsor, Manager, and Caucus Members informed and updated.
- Models good meeting management.
- Commits to learning and continuous improvement.
- Maintains consensus decision making.
- Provides support and follow-up to the Data Manager.
- Commits to seeing and doing work as a process in continual improvement.
- Shares ideas and suggestions for improvement with other team and work members.

Data Manager

The process improvement Data Manager is responsible for calculating and explaining the measurements at the time of the process improvement activity (such as Value Stream Mapping-VSM, Kaizen, etc.) and for tracking and reporting them for the duration of the process improvement project.

- Documents and Calculates metrics as team works through the mappings.
- Calculates the summary metrics.
- Calculates the implementation plan gains.
- Works, as indicated, with the Manager to track measurements during implementation / follow-up.

Caucus Member

The Caucus Member serves as a resource and support to the Team by:

- Staying informed of the Team's progress.
- Providing feedback, expertise, and input as requested.
- Participating in selected team meetings if needed.
- Providing other support as needed or requested by the Team.



Your Intervention Charter



Improvement Intervention Charter

Process/Team Name:			
Name	Position/Job	Phone	Email
<u>Sponsor:</u>			
<u>Manager:</u>			
<u>Team Members:</u>			
<u>Data Manager:</u>			
<u>Caucus Members:</u>			
<u>CI-Practitioners/Facilitators:</u>			

<u>Process Description:</u>	

<u>Customers/Clients:</u>

<u>Supplier:</u> (upstream)

<u>Process Boundaries:</u>	<u>Last Step:</u>
<u>First Step:</u>	

<u>Problem Statement:</u>



Measurement Targets:	Specific Measurements:	Timeframe:
<u>Process:</u> 1. Reduce the time its takes for the whole process. 2. Simplify the process flow. <u>Project:</u> 1.	1. Reduce the lead time by ____%. 2. Reduce the number of process steps by ____%. 1.	

<u>Resources Available:</u>

<u>Role Expectations:</u>

Process & Project Deliverables:

Objectives	Expected Deliverables	Timeframe
<u>Process Deliverables:</u> 1. Facilitate a team to analyze and produce a current process state map. 2. Facilitate team analysis of current state to identify process improvements to produce future state map. 3. Facilitate team development of an action/change plan to implement identified improvements. 4. Facilitate follow-up session(s) within 30/60/90 and monthly days thereafter <u>Project Deliverables:</u> 1. Assure implementation of the plan.	1. Current State Map. 2. Future State Map. 3. Production of Implementation Plan 4. Status updates, reports. Identify barriers to improvement. 1.a. Assigned responsibilities for implementation activities. 1.b. Management/monitoring & Follow-up plan and process in place. 1.c. Future State fully implemented.	



2. Evaluate effectiveness of future state changes to assure efficiency, effectiveness, and quality & to identify needed areas of improvement.	2. Analysis of customer and program/ process outcomes tracked and reported.	
---	---	--



Intervention Process Charter – Definitions, Descriptions, and Examples

Process Name: A brief name for the process for which the intervention is being conducted. The charter describes the specific process and work that the team is about to address.

Process Team:

Sponsor: The person with overall responsibility for the intervention and its implementation.

Manager: The person responsible for managing the implementation of the intervention, as well as a brief outline of their authority,

Team Members: All the Team members – the staff who actually do the work.

Data Manager: The person who will be responsible for assisting the other team members to calculate and track the measurements.

Caucus Group Members: The resource staff who can be called for specific expertise or other support as needed.

Process Description: A brief description of the process being proposed for improvement.

Customer(s): Identifies the customer(s) of this process, both internal and external to the process itself.

Supplier: The internal and/or external persons/entities that provide information, documents, supplies, people, etc. for the process.

Boundaries of this Process: Defines specifically where this process begins and ends for the purposes of this intervention.

Problem Statement: The reason(s) you want to change this process. What you want to change, improve, or create.

Measurements: (See examples below.)

Measurement Targets	Specific Measurements	Timeframe
---------------------	-----------------------	-----------



<p><u>Process Measurements</u></p> <ol style="list-style-type: none"> 1. Reduce the time its takes for the whole process. 2. Simplify the process flow. 3. Reduce errors and re-work, improving the quality of the work. 4. Reduce the staff time required in order to free up resources for other work. 5. Reduce associated costs, increasing savings available for improving services. <p><u>Project Measurements</u></p> <ol style="list-style-type: none"> 1. Increase the number of customers served in a timely way. 2. Improve the collection and availability of project implementation/ measurement data/information. 	<ol style="list-style-type: none"> 1. Reduce the lead time by ____%. 2. Reduce the number of process steps by ____%. 3. Increase the first-past-yield % by ____%. 4. Staff time reduced by ____%. 5. Decrease changeover time by ____%. <ol style="list-style-type: none"> 1.a Increase the number of customers served within one week of request by ____%. 1.b Over time, consistently continue to increase the number of customers served in a timely way by at least ____%. 1.c Over time, consistently continue to decrease the actual amount of time spent waiting by customers after request by at least ____%. 2.a All project data is updated and current on a daily basis. 2.b 	<p>90 Days</p> <p>30 Days</p> <p>60 Days</p> <p>30 Days</p> <p>30 Days</p> <p>90 Days</p> <p>Monthly</p> <p>Monthly</p> <p>60 Days</p>
--	--	--

Resources/Budget: Identifies human, fiscal, and other resources available to the project team and project process.

Role Expectations: Describes expectations about authority and responsibility in relation to the intervention, decision-making, and implementation.

Process/Project Deliverables: Concise description of project deliverables expected. (Examples below.)

Objectives	Expected Deliverables	Timeframe
------------	-----------------------	-----------



<p><u>Process Deliverables</u></p> <ol style="list-style-type: none"> 1. Facilitate team to analyze current process state. 2. Facilitate team analysis of current state to identify process improvements. 3. Facilitate team development of an action/change plan to implement identified improvements. 4. Facilitate one or more follow-up session(s) within 30/60/90 days and monthly thereafter. <p><u>Project/Process Deliverables</u></p> <ol style="list-style-type: none"> 1. Assure implementation of the plan. 2. Evaluate effectiveness of changes for efficiency, effectiveness, & quality & to identify needed areas of improvement. 3. Develop and implement a standardized process. 4. Assure that every program area and all staff understand what is required. 	<ol style="list-style-type: none"> 1. Production of a Current State Map. 2. Production of Future State Map. 3. Production of Implementation Plan 4. Status updates, reports. Identification of barriers to improvement. <ol style="list-style-type: none"> 1.a. Project Plan developed. 1.b. Future State fully implemented. 2. Analyze, track & report customer and program/ process outcomes. 3. SOP Handbook/Manual 4.a, SOP developed, published, and available/accessible to all staff. 4.b. SOP training developed and required. 	<p>First Day</p> <p>Second Day</p> <p>Second Day</p> <p>90 Days</p>
--	---	---



What is Lean?

As part of State government, we want to provide the highest quality of life to as many of Maine's citizens as possible and to support other State staff in that effort. And we all want to do this

- As quickly as possible.
- As simply as possible.
- With the highest quality possible.
- Using the fewest resources possible.
- Using facts whenever possible to solve problems.
- With a disciplined, best practice approach.
- In a way that is sustainable beyond our tenure in government.

The Lean model provides the philosophy and approach for us to do this. The Lean philosophy is fundamentally about creating value for the customer/client while using the fewest resources possible. It's about getting the right service in the right amount to the right person at the right time, while minimizing waste and being flexible and open to change and improvement. It is, at its heart, essentially a disciplined thought process about the work we do and describes a dynamic process governed by a systemic set of principles, methods, and practices that embrace all aspects of our work.

Lean is, therefore, *a way of thinking* to adapt to change, eliminate waste, and continuously improve. It does not expect us to arrive at perfection. Instead, it stresses an evolutionary process of change and adaptation. It provides a number of tools and techniques to help us maximize the effort of our workforce and to operate as a lean government.

There are several key principles that are at the core of Lean philosophy:

- 1) Know your customer/client – who they are and what they want and when.
- 2) The customer defines value.
- 3) Keep the process simple (and eliminate waste).
- 4) Do "it" right the first time.
- 5) Involve and empower employees.
- 6) Continually improve in pursuit of perfection.

These principles probably appear to be common sense and straightforward and yet are often very difficult to make a reality. The principles assume that an individual, team, or an organization is consistently operating with a **PROCESS MINDSET**. Having a process mindset means that the notion of "process" is so imprinted into our worldview that it is an automatic filter through which we view reality. So much so, that when asked, "What do you do for work?" we see a process, not simply a task or an event. Not only do we see a process but also see many processes, weaving together, as well as many levels of process.

With a process mindset, it also becomes easier to identify those things that do not add value from the customer's perspective, such as **WASTE**. Waste, or non value-added tasks/steps, is not something a customer would be willing to pay for. In the Toyota system, waste is defined as "anything other than the minimum amount of equipment, materials, parts, space, and worker's time which are absolutely necessary to add value to the product [services]." When we do things right the first time, there is less waste and more value to the customer.



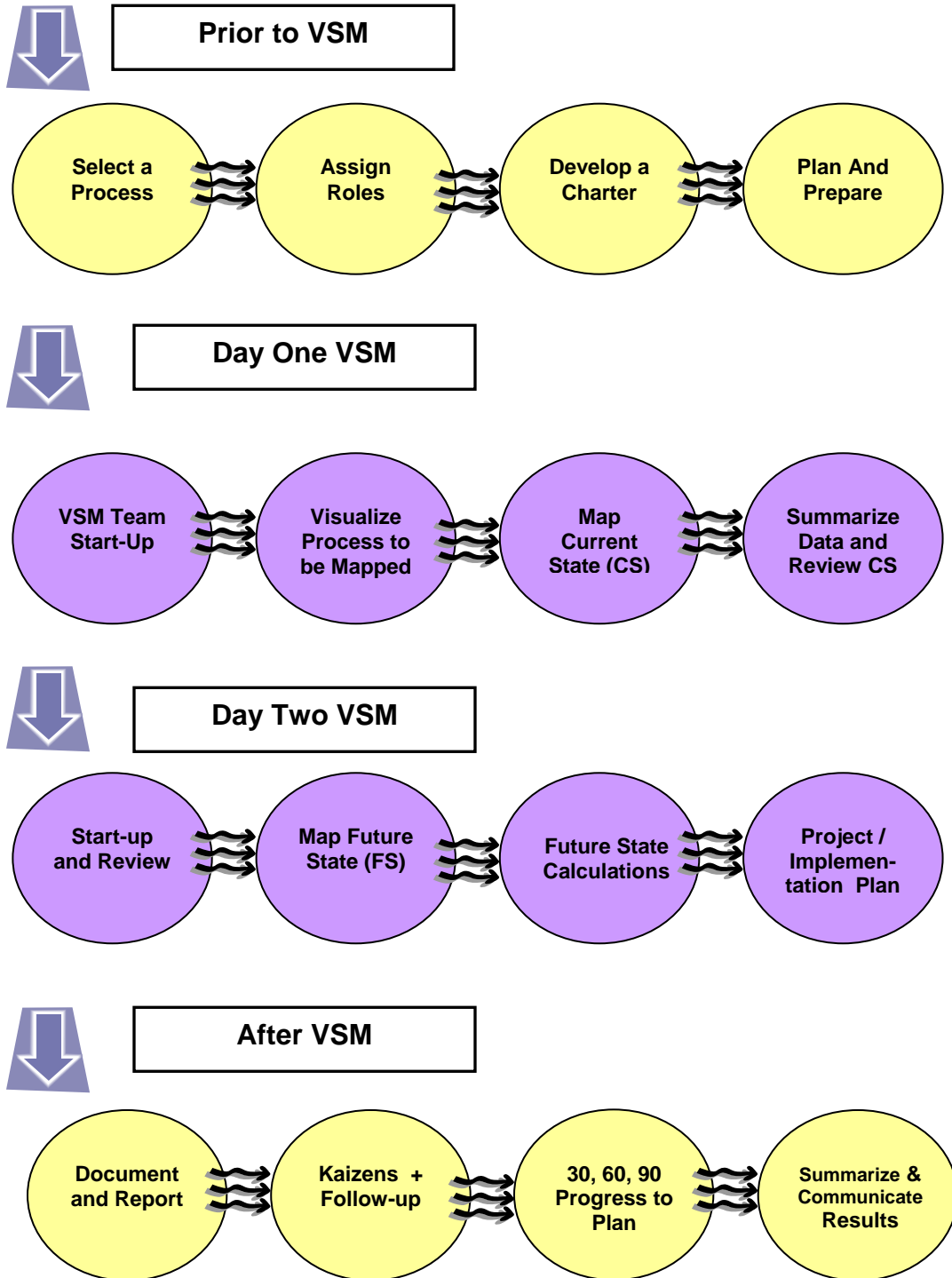
When our processes are simple and **FLOW** in a continuous, connected, unobstructed way, there is less waste and more value to the customer. Flow is defined as the progressive achievement of tasks along a value stream so that a product or service proceeds from the beginning and into the hands of the customer without any stoppages/waits, waste, or backlogs. Through the value stream mapping process, we will visualize the process flow, measure it, and then plan and implement ways to improve it.

The term **VALUE STREAM** is simply all the specific activities required to design, order, and provide a service or product to a customer. The bookends identified in the team's charter define the beginning and end of the particular value stream to be mapped.

Key Lean Characteristics:

- Pull service delivery: Services are "pulled" by the consumer, not pushed from the service delivery end.
- First-time quality: Striving for excellence/perfection, for zero defects/redone work. Identifying & solving problems at their source; achieving higher quality and performance at the same time; teamwork & worker empowerment.
- Waste minimization: Minimizing/eliminating activities that do not add value; maximizing use of resources (capital, people, and space), efficient use of just-in-time inventory.
- Continuous improvement: Continually improving quality, increasing productivity/performance, reducing costs (resources), and sharing information.
- Flexibility: Being open to change; providing different mixes and/or greater diversity of services quickly, without sacrificing efficiency.
- Long-Term Relationships: Building and maintaining effective long-term relationships with providers/contractors through collaborative risk-sharing, cost-sharing, and information-sharing arrangements.

Overview of a Two-Day VSM Process



Description a Two-Day VSM Process

Purpose: The purpose of the Value Stream Mapping process is for team members to --

1. See - and document the process, nuts and bolts of each transaction; flow chart it.
2. Assess - using VSM measurements, characterize the current state process.
3. Measure - in addition to the VSM measures, ask if there are others?
4. Change – identify, plan, and implement changes, and then measure improvements.

VALUE STREAM MAPPING (VSM) is a practical and visual tool that allows you to identify the non-value-added (waste) activities, tasks, and steps in any process (value stream.) And to create an implementation plan to improve the process, eliminate or reduce the waste, and add greater value to the customer. Below is one example of a completed current state map.



Prior to the VSM

First, the process to be mapped is selected. Each Department and individual organizational units may have a little different method of selecting a process for improvement. Next, roles are assigned: Sponsor, VSM Manager, Team Members, Data Manager, and Caucus Members as appropriate. The sponsor, manager, and sometimes other team members, meet with the Continuous Improvement Practitioner (CIP) to develop a charter and contract for support. The Charter and related VSM information are sent out to all the team members. Then each person, within his or her specific role, plans and prepares for the VSM. Sometimes this will also include a Worksite Visit by the CIP(s). The purpose of the visit is to collect information in order to assess needs and recommend the most appropriate intervention process and tools. And, of course, all administrative and logistical requirements get attended to as well.



Day One VSM

The focus of the first day is to accurately see and measure the current process as it actually is now. The tendency on Day One is to want to “fix” the process – to leap to solutions -- rather than first just trying to understand it – as it is now. You will have the opportunity to make things better on Day Two!

Day Two VSM

On Day Two, the focus is on the future. If the process were improved by applying lean concepts and tools, what would the future state of the process look like and how do we anticipate it would perform? The team creates and maps a new, improved, ideal future process.

It then asks what will need to be measured in order to know how it is improving. The team discovers their answers to these questions, then begins to identify the changes that will be needed to move the process from its current state to the future state.

The team then develops an implementation plan that describes how they will create the future state – what actions/activities are needed to get from the current to future state. The team plans only the changes that they will commit to carrying out together. The purpose of the plan is to quickly change the process from the current state to the future state.

After the Two-Day VSM

The work accomplished by the VSM team must be documented and a report given to the VSM Sponsor and Manager. The implementation plan that was developed must be followed through with, using good project management tools and techniques. Rapid Improvements/Kaizens need to be scheduled along with any other follow-up activities that were identified during the VSM.

The word *Kaizen* means to “make better.” In a Kaizen, a team meets to rapidly address challenges that were identified during the VSM. The team must report and measure progress on the plan at 30, 60, and 90-day and then at least monthly intervals. All results must be documented and reported.

Communication from the team to the organization is extremely important. The team is responsible for sharing their learnings – successes and failures – in order to support continuous learning and improvement.

VSM Current State

Worksheet: Visualize the Process to be Mapped

Purpose: The purpose of this task is to:

1. Begin visualizing the steps and sequence of the process to be mapped.
2. Get everybody on the same page about what the process is.
3. Engage all team members in the work.
4. Quickly generate information about our collective understanding of the process as a base from which we'll work.

Task:

- We will work individually for a few minutes and then as a group.
- Individually, brainstorm as many steps in your process as you can think of. Don't worry about sequence or accuracy. If you don't know a step, someone else will.
- We will use the "bookends" we've already talked about in the Charter. These are already posted on the butcher paper on the wall.
- Use a separate 4x4 post-it for each step you can think of. Please use a sharpie pen and write large enough to be read from a distance (and legibly) !
- You have 3 minutes.
- Remember, this is a silent, individual brainstorm. Work quickly and get as many steps down as you can.

Keep in Mind: This brainstorming is not the time for discussion on the how and why of each step, but only what's occurring now in the process as you see it yourself and at what point it's occurring. No debates -- if someone's doing it, it's part of the process. There will be time later for a detailed discussion of these steps.



Worksheet: Value-Added vs. Non-Value-Added

Purpose: The purpose of this task is to reinforce the definitions and differences between Value-Added and Non-Value-Added activities within a value stream.

Task:

- 1) Individually, review the list of activities on the following page. Decide whether each activity is Value-Added (VA) or Non-Value-Added (NVA). Circle the appropriate response.

- 2) Use the following definitions as your criteria:

Value Added – Any activity that adds to the form or function of your work. Any activity that the customer** is willing to “pay” for.

Non-Value-Added – Any activity that consumes resources but creates no value for the customer. Any activity that is not necessary.

*** Remember, customers can be other employees, clients, legislators, taxpayers, federal agencies; walk-in customers, or any other person, group, or agency that directly or indirectly receives value from your service.*

Typically, within value streams for service industries, almost half of all process lead time (the time from start to finish for an unit of work) is non-value-added and, many times, is even more.

- 3) Be prepared to share any questions or observations.
- 4) You have a total of **five (5) minutes** to complete this task.



Worksheet: Value-Added or Non-Value-Added Activities?

Are these activities value-added or non-value-added?	<i>(circle response)</i>	
1. Walking 25 steps to get the correct form	VA	NVA
2. Two-year supply of a form in the filing cabinet	VA	NVA
3. Adding the client's name to the form	VA	NVA
4. Re-typing information	VA	NVA
5. Hunting for correct paper for copy machine	VA	NVA
6. Loading correct paper into the copy machine	VA	NVA
7. Printing the required number of copies	VA	NVA
8. Trying to find the person for a required signature	VA	NVA
9. Filing a copy of the completed form in two offices	VA	NVA
10. Filling out reports that no-one looks at	VA	NVA
11. Reviewing the form for correctness	VA	NVA
12. Calling to get missing information	VA	NVA
13. The form or check is lying around waiting to be mailed	VA	NVA
14. Printing paperwork too soon	VA	NVA
15. Walking to central filing	VA	NVA

- Questions or Observations:



Worksheet: Current State Mapping

Purpose: The purpose of this task is to visualize and document the current state of your process by applying VSM tools, working toward consensus, and staying open. And to measure each step, note problem areas, and identify potential improvement opportunities.

Task:

- We'll start at the end of the process and work our way backwards. Always keeping the **customer** front and center.
- We will name each step and complete a buff/yellow **data sheet** for each step of the process. As much as possible, we will strive toward **consensus** on what each measurement is.
 - We will use the materials on the previous pages of this workbook as a guide in completing the data sheets. Completing the first few steps will take us a little longer as we learn a new language and gain a greater understanding of what we are trying to capture with each measurement.
- As we discuss each step, we will highlight comments, ideas, concerns, need for more information or clarification, a step that needs serious study, more potential resources, etc. Each will be noted on a buff/yellow post-it/stickie for that step.
- It's important that we all contribute what we know, suspend judgment, and ask questions. All questions are great questions!
- This task requires us to stay focused and disciplined in how we work through the process. Our tendency will be to want to "fix" the process and jump to solutions. That will happen when we define the Future State for this process. For now, we'll capture all your ideas, but we won't work on them. The focus at this point is on getting a picture of what is actually happening. (If you have ideas/suggestions for improvements to use for the Future State, write each one on a blue post-it/stickie & give these to the Facilitator or Data Manager to put on the appropriate step or on the *Parking Lot* if it relates to the whole process.)
- We'll also use the "**Parking Lot**" to capture ideas, comments, etc. that we don't want to forget (and will address later) but that begin to lead us off track.
- We'll use the "**Assumptions**" flip chart to capture the assumptions we make as we go along. This will help us to make sense of our measures and decisions later on in the process.
- We have _____ (time) to complete this task.



Working With Data Sheets

Now that we've reviewed the charter and process bookends and brainstormed the steps of the process, we will map its current state, starting with the last step – this is to remind us to keep the customer/client front and center.

For each step in the process, we will use a worksheet that we call a **DATA SHEET**. It is used

- to document and calculate measurements,
- to keep track of assumptions,
- to highlight opportunities for improvement, and
- to provide a baseline for measuring improvements.

Using the data sheets to measure the process can sometimes feel frustrating, difficult, and even like a waste of time. The numbers you provide in this mapping session can seem arbitrary and of little value. Keep in mind that, by and large, measuring our operational processes is a new concept and often counter to the current culture. At present, these measurements are either non-existent or fairly minimal. So what may seem as arbitrary is actually a giant step forward!

Keep in mind that the collective wisdom of the team regarding a measurement is a much better number than nothing at all. For many steps in the process, we may be using a “yardstick” to measure for now – not all that accurate. However, it's better than zero. In the future, as we more routinely measure what we do in our processes, we'll be able to become more precise and, through continuous improvement, to begin to use a “micrometer.”

So, why go through this frustration? Because we can't answer the question of how much waste is in the process. The customer does not consider waste as value-added, something they would be willing to pay for. And we can't improve it if we can't measure it. As we all know, sometimes just simply starting to measure something leads to its improvement.

Some **TIPS** for using the data sheets to measure the current state process:

- Don't get bogged down in numbers or percentages – use the best data available to you. If you need to, throw out the highest and lowest numbers and make an estimate. An estimate, while not 100% accurate, is still closer to being accurate than nothing.
- The time periods for the data measurement must be the same for all steps – usually minutes, but use what corresponds best to the process being mapped.
- Use yellow/buff post-it notes (stickies) for any comments, concerns, etc. The number of notes under a VSM data sheet may visually indicate which steps need further focus.
- Complete a data sheet for each step.
- All data must be entered.
- Start at the last step (closest to the customer) and always keep the CUSTOMER in mind.
- Remember that, as you work through the process, you will be learning and may be making changes to the data.



VSM Data Sheet w/ Definitions

NAME OF THE STEP/PROCESS:	
STEP DESCRIPTION: (Describes what is included in the step, what it encompasses.)	
SPECIAL CONSIDERATIONS: (Notations about special needs, such as training, limitations, licenses, certifications, etc.)	
Amount of Work Waiting for this Step: (How many people or items are waiting. Shows backlogs, excess inventory, and bottlenecks.)	
C-T CYCLE TIME: (The amount of time it takes to complete one step/item from the end of the previous step to the end of the current step. Includes changeover time, wait time, etc.)	
# OF PEOPLE: (Required to do this step for this one item at the same time)	
S-T STAFF TIME: (Amount of staff time involved in this step for <u>all</u> staff involved -- this is the time actually spent acting on, doing, changing, or working with a person or single item multiplied by the # of People doing this work. Includes time waiting if performing other work is unlikely.)	
V-A VALUE ADDED % : (An estimate of the percentage of Value-Added Time within the Cycle Time for the step. This is what the customer would be willing to pay for if given the choice)	
R-N-V-A REQUIRED NON-VALUE ADDED % : (An estimate of Non-Value-Added Time that is required by law, rule, regulation, or other mandate.)	
C-O CHANGE OVER TIME: (The amount of time it takes to change over from the end of the previous step to the beginning of this step – such as logging into a computer application, getting records/forms, setting up for customer encounters, etc.)	
U-T UP TIME % : (The percentage of time a person, program, printer, copier, etc. is available compared to the time each is expected to be available/run. For example, the time a supervisor is available for signatures, the time a copier is available and/or works.)	
F-P-Y FIRST PASS YIELD % (The percentage of time that quality standards are met the FIRST time through; the percentage of time the step is completed correctly the FIRST time)	
NOTES: (All pertinent ideas, assumptions, and information -- Any information about the process that is important and not captured in other data boxes)	



Guide for Completing the Data Sheet

STEP NAME

- Name of the specific Step.
- Choose a name the group can agree on.

STEP DESCRIPTION

- Describes what is included in the step, what it encompasses, what the step boundaries are.

SPECIAL CONSIDERATIONS

- Notations about special needs, such as training, limitations, licenses, certifications, etc., required for the step.

WORK/INVENTORY WAITING TO BE PROCESSED

- What is the unit of work? What will we be tracking through the process? What is the volume for a day, a week, or a year?
- The number of people or items waiting for this particular step of the process.
 - # Of forms, files, cases, or people waiting
 - If I walk by your desk at any time, how much is in your *IN* basket? Work Waiting tells us where the bottlenecks are.

CYCLE TIME C-T

- The amount of time it takes to complete this step, measured from the end of the previous step to the end of this step, including the change over time.

TO THINK ABOUT: TIME ASSOCIATED WITH WORK WAITING

- The amount of time associated with the work waiting to be processed – a time measurement
 - Example: 20 forms waiting to be inputted. If each takes 10 minutes to process then you have 200 minutes of total work waiting time
(20 forms x 10 minutes/form = 200 minutes)
- The total amount of time comes from multiplying the amount of work waiting/inventory **X** cycle time.

NUMBER OF PEOPLE

- The number of staff/employees needed to do this same step at the same time on the same piece of work.
 - Example: If a step needs two people working together in order to perform the work, then this would be filled in with 2.

STAFF TIME

- Amount of staff time actually used to perform this step.
- Include time spent waiting if performing other work is unlikely.
- Do NOT include time spent waiting if performing other work is likely.
 - Example: Employee faxes a report to 20 individuals. It takes 15 minutes to program/feed the fax and 45 minutes for the fax machine to finish – staff time involved is 15 minutes.



VALUE ADDED % V-A

- Value-Added = any activity that increases the form or function of the product or service. These are the activities the customer is willing to “pay” for.
(Non-Value-Added = any activity that does not add form or function, or is not necessary. These activities should be eliminated, simplified, reduced, or integrated. Not unusual to see 60% or more NVA.)
- An estimate of the percentage of “value added” time in the total time of the step (cycle time).
 - How much of the time spent on this step is value added? (Not, is this step value added?).
 - Filled in as a percentage.
- This is the percentage of value-added time for the cycle time of this particular step, not the actual staff time or whole process.

REQUIRED NON-VALUE ADDED % RNVA

- An estimate of non-value-added time for the step that is required by policy, law, rule, regulation, or other mandate.
- Filled in as a percentage.

CHANGE OVER C-O

- The amount of time it takes to change over the machine or program from the end of the previous step to the beginning of the current step.
 - Examples:
 - Creating a new file for a new customer/client.
 - Changing from one computer program to another.
 - Searching your desk for the correct form.
 - Getting ready for customer/client encounters (scheduling, getting the file, preparing forms, etc.)

UP TIME U-T

- The percentage of time a person, program, printer, copier, etc are available compared to the time they are expected to run.
 - Examples:
 - If a printer is down an hour a day when you need it, then U-T is 87.5% (7/8).
 - If a supervisor is available for their signature only 2 days a week, then U-T is 40% (2/5).

FIRST PASS YIELD FPY

- Percentage of time that quality standards are met the FIRST time through.
- Percentage of time the step is completed correctly the FIRST time.
- Redoing anything is a strike against FPY.
 - Example: Supervisor sends a report back for some kind of revision, correction, missing information roughly one out of every five reports. FPY would be 80%..

NOTES

- Any other information about the process that is important and is not captured in the data boxes.



Worksheet: Calculating Current State Metrics

Purpose: The purpose of this task is to summarize the current state metrics, creating a baseline from which to measure future improvements.

Task: A VSM team member will be assigned one or more of the following calculations to complete. Follow the corresponding instructions on the [next page](#).

VSM Team Member(s) Assigned	Calculation	Current State Metric
Team Member 1:	1) # Steps: Count the number of steps	
Team Member 2:	2) Lead Time: add up the cycle times across to give us the lead time	
Team Members 3 & 4:	3) Total Value Added: Calculate the individual value added times and then add them up to provide the total value added time	
Team Members 3 & 4:	4) Non-Value Added Percent: Total Value Added divided by the lead-time is the Non-Value Added Percent.	
Team Members 5 & 6	5) Total Required Non-Value Added Time: calculate the individual required, non-value added times and then add them up to provide the total required non value added time.	
Team Members 5 & 6	6) Required Non-Value Added Percent: Total Required Non-Value added divided by the lead-time is the Required Non-Value Added Percent.	
As a team	7) Annual Units (units/cases/people/forms: The count of outcome completed in a year is:	



INSTRUCTIONS FOR COMPLETING THE CURRENT STATE METRICS

1) Team Member 1: Count the number of sheets on the map and write "XXX Steps" at the end of the map directly under the metrics heading. It should be about 2-inches tall to fit the rest in. (Time: < 2 Minutes.)

2) Team Member 2: Calculate Lead Time by adding all the Cycle Times across all the steps' data sheets and write "Lead Time = " with the number below the Number of Steps at the end of the map. (Time: < 10 minutes.)

3) Team Members 3 & 4: Calculate the Value-Added Time as follows: Person 3 should go up to the first step on the map and read out: the Cycle Time (including the time unit) *times* the Value-Added percent as a fraction). (*Example: "Twenty minutes times point two five."*) Person 4 will multiply the two numbers and read out the answer as "xxx Units" (*Example: "Five minutes"*). Person 3 will then write "xxx units VA" ("5 min VA") in the upper left corner of the sheet. Person 3 will then move onto the next sheet and repeat until all the sheets are done. The VA numbers should then be summed across all the sheets and entered onto the end of the map and labeled as "Value-Added Time". (Time: <10 Minutes.)

4) Team Members 3 & 4: Calculate the Value-Added Percentage for the process as follows: Person 3 will go to the end of the map and write the Value-Added time calculated immediately before this step and put a division "/" symbol and then put the Lead Time beneath. Person 3 will then read out: "(Value Added with units) divided by (Lead Time with units)" (the units must match) and person 4 will make the calculation and then read out "xxx Percent") Person 4 will write down "xxx % VA" at the end of the map under the Value Added Time. (Time: < 1 minute.)

5) Team Members 5 & 6: Calculate the Required Non-Value Added Time as follows: Person 5 should go up to the first step on the map and read out "(the Cycle Time including the units) times (the Required, Non-value Added percent as a fraction)". (*Example "15 minutes times point 5"*). Person 6 should multiply the two and read out the answer as "xxx units" (*Seven point five minutes."*) Person 5 should write "XXX units RNVA" ("7.5 min RNVA") in the upper left corner of the sheet under the VA numbers. Person 5 should then move onto the next sheet and repeat until all the sheets are done. The RNVA numbers should then be summed across all the sheets and entered onto the end of the map and labeled as "Value Added Time". (Time: < 10 Minutes.)

6) Team Members 5 & 6: Calculate the Required, Non-Value Added Percentage for the process as follows: Person 5 will go to the end of the map and write the Required, Non-value Added time calculated immediately before this step and put a division "/" symbol and then put the Lead Time beneath. Person 5 will then read out: "(Required, Non-value Added time with units) divided by (Lead Time with units)" (the units must match) and Person 5 will make the calculation and will then read out "xxx Percent"). Person 6 will write down "xxx % RNVA" under the RNVA Time. (Time: < 1 minute.)

7) As a team: We will calculate the number of units of work in the value stream in a year. We need to determine how many of these we do from start to finish in a year. That is, we need to determine how many times the value stream is repeated in a year. (The number of units of work we do.)



Value Stream Mapping Measurements

CURRENT STATE SUMMARY DATA CALCULATIONS –

1. Add the Cycle Time (C-T) from each Data Sheet and write it at the end of the process – This is the **Lead Time** for the whole process.
Example: LT = 200 min
2. a) Calculate the **Value-Added Time** for each step by multiplying the Cycle Time (C-T) by the Value-Added % (V-A) and write that number on the upper left hand corner of each Data Sheet.
Example: VA = 2 min

b) Add the Value-Added Time from all data sheets and put this number on top of the Lead Time calculated in Step 1 above. Divide this, and you will get the Value-Added percentage for the overall process.
Example:
$$\frac{50 \text{ min Total VA}}{200 \text{ min LT}} = .25 \text{ or } 25 \% \text{ VA}$$

c) Calculate the total percentage of **Non-Value-Added (NVA) Time** by dividing the total Value-Added Time by the Lead Time and subtracting from 100. Write this at the end of the process with a marker.
Example:
$$100 \text{ minus } \frac{50 \text{ min Total VA}}{200 \text{ min LT}} = 75 \% \text{ NVA}$$
3. Count the number of steps (data sheets) and write at the end of the process.
Example: 18 Steps
4. Carefully study each Data Sheet – Are there any that have a piece of data that really stands out? For example:
 - Inventory that is much higher than the other Data Sheets/Steps
 - Up-Time that is much lower than the others
 - Change-Over that is much higher than the others
 - FPY that is lower than 95%
 - Low Value-Added Percentage

If so, mark that step so you will not miss it the next day for improvement considerations during the Future State- circle that piece of data with a marker or use a Dot or small Post-It to point it out.
5. Your data should be for one piece, document, or case, etc. Multiply the **Lead Time** by the **total number of work units**, documents, etc. that are done in a day, a week and finally in a year. Write this down at the end of the process map – in pencil for now.
Example: Total documents in a day = 30
Total documents in a week = 150
Total documents in a year = 7800

6. Finally, check all your calculations.



The Future State

**The Eight Wastes
&
Lean Concepts for Improvement**



The Eight Wastes

Lean = Eliminating the 8 Wastes

Recognizing waste leads to identifying the root cause of problems. Waste within a process is a systemic flaw. All non-valued activity can be categorized into the 8 wastes below. Examples are given below for each category.

1. Overproduction

- Generating more information than the customer needs right now.
- Generating more information than the next process needs.
- Creating reports that no one reads.
- Making extra copies.
- Duplicate data sources.

2. Waiting

- Idle time created when material, information, people, or equipment is not ready.
 - Waiting for the computer system to come back up.
 - Waiting for a handed-off file to come back.
 - Waiting for customer response.
 - Waiting for copy machine.
 - Waiting for faxes.
 - Excessive Login or response times.
 - Waiting for hard copy printouts.

3. Transportation

- Movement of information that does not add value.
 - Retrieving or storing files.
 - Carrying documents to and from shared equipment.
 - Taking files to another person.
 - Going to get signatures.
 - Moving work over long distances.

4. Non-Value-Added Processing

- Efforts that add no value from the customer's viewpoint.
 - Creating reports.
 - Repeated manual entry of data.
 - Redundant reviews/approvals.
 - Use of outdated standard forms.
 - Use of inappropriate software.
 - Data entry not performed at the source.
 - Information for decision-making not real time.



5. Excess Inventory

- More information, projects, material on hand than can be worked on or the customer needs right now.
 - Files waiting to be worked on.
 - Unused records in the database.
 - Open projects.
 - Office supplies, piles and shelves of supplies.
 - E-mails waiting to be read.
 - Requests for services.

6. Errors

- Work that contains errors, lacks something necessary, or needs other rework.
 - Data entry error.
 - Pricing error.
 - Missing information.
 - Missed specifications.
 - Lost records.
 - Collect wrong or incorrect data.
 - Equipment breakdowns/malfunctions.

7. Excess people motion

- Movement of people that does not add value.
 - Searching for files.
 - Extra clicks or key strokes.
 - Clearing away files on the desk.
 - Gathering information.
 - Looking through manuals and catalogues.
 - Handling paperwork.

8. Underutilized people

- People that are needed, but not enough work to keep them busy all day – could be helping others – unbalanced workloads.
- Poor or neglected user training and user documentation for existing/new processes.
- People watching equipment work (e.g. watching while copier prints).
- People with training and skills beyond that needed to do the work.



VSM Worksheet: Identifying Wastes, Applying Lean Concepts

Purpose: The purpose of this task is to recognize the 8 Wastes in our daily work, and to apply Lean Concepts that are effective in reducing or eliminating them.

Method: Divide into groups – to be specified by Facilitators

Task: Select one or more steps in your process.

Step Name:

1. Identify the Waste(s) in your process:

2. Name the Waste(s) you see:

3. Select one or more Lean Concepts on the following pages to improve this step/eliminate the wastes identified:



Lean Concepts

Using these Lean concepts can help you to transform your Current State to your Future State:

1. Eliminate non-value-added activities, tasks, steps

- Evaluate every activity, task, and step from the customer's point of view and ask if this action is adding form or function to the service. If it is not, try to eliminate as much of the non-value-added time as possible. Remember that customers can be internal, external, direct or indirect -- some one is paying for the services.

2. Implement low-cost / no-cost solutions first

- Use simple, grass-roots level suggestions to eliminate waste. Carry out easy decisions and make low-cost decisions. This is the test phase -- you can make permanent changes later.

3. Simplify the process

- Ask why the step or action is being done. Most of the time, the customer's requirements change over time and the process is never re-evaluated to match the current needs of the customer. Applying Lean can be a real "up-hill battle" if key business processes are no longer appropriate or even out of date.

4. Integrate the processes or steps in the process

- The process should be reviewed to reduce or combine steps in order to eliminate duplication, inconsistencies, conflicts, and redundancies across processes, functions, or offices/departments.

5. Do things only once

- Eliminate error and rework. They waste resources -- human, financial, and time -- and do not meet the needs of the customer. For example, try to capture required data as needed and as close to the source as possible to eliminate loops (going back to source for data) in the process. Current States with an action, data, or information path that moves backwards should be strictly scrutinized.

6. Look at process from the customer point of view

- At every step, determine the receiver of the generated output(s) and know the required outcome. Remember that there can be, and are, many customers within a value stream.



7. Implement visual systems

- Visual systems are a form of communication and can be used to direct flow with minimal interaction from a person. Typically these can be no or low-cost solutions and can be quickly implemented to improve people, information, and documents flows. Simple signals that provide an immediate understanding of a situation or condition. They are efficient, self-regulating, and worker-managed.

8. Create value based on customer demands and needs (define the customer)

- Perform tasks that increase the value of the service for the customer -- anything else that is not necessary is waste.

9. Reduce batch size

- Analyzing the amount of inventory (or work) before and after a step in the process can help identify bottlenecks or capacity constraints in the system. Only one client, couple, case file, etc. can be addressed at a time, so question the practice of stacking or batching work and pushing batches forward to the next step in the process.

10. Improve quality – do it right the first time !

- Strive for perfection at the source of the work, always. People must be certain that the work/information they are passing to the next work step/area is of accepted quality.

11. Reduce transportation and/or motion

- Analyze the amount of movement of people and documents in performing a step. Much time can be wasted in unnecessary movement.

12. Standardize the work

- Documented, standardized work reduces cross-training time, improves efficiency, reduces searching times, and creates a work area and/or processes that produce replicable and reliable outcomes. Standardized work minimizes variation in process and process result(s).

13. Implement 5 S – Sort, Set in order, Shine, Standardize, Sustain

- Sort: Eliminate the Clutter – “When in Doubt, Throw it Out.”
- Set in Order: Organize and label, set boundaries and limits – “A place for everything and everything in its place.”
- Shine: Clean everything, inside and out – “Inspection through cleaning.”



- Standardize: Keep procedures, checklists, charts, etc. and make them visual – “Everything in a state of readiness and service”
- Sustain: Maintain discipline through the implementation of continual improvement systems and culture

14. Reduce setup or changeover time

- Changeover activity is considered non-value-added and detracts from available productive time. Reducing setup is critical to increasing customer responsiveness and effectively reducing “lot” size.

15. Implement Pull vs. Push Systems

- A Pull System is a method of controlling the flow of resources (people, information) based on pre-established rules, and the actual status of the system at any time. A Pull System is a flexible and simple method of controlling/balancing the flow of resources. It eliminates waste of handling, storage, expediting, obsolescence, rework, facilities, equipment, and excess paperwork.
- A Pull System consists of:
 - Processing/delivery of services based on actual consumption/demand of the customer.
 - Low and well-planned work in process (paperwork)
- Management by sight, improved communication.

16. Complete small incremental changes

- Strive for transition to the Future State with incremental and monitored (measured) changes. Effective vs. ineffective changes can quickly be recognized and continuous improvement will be achieved more efficiently.

17. Establish appropriate measurements to determine improvements in quality, customer service, and cost.

- Check measurements on impact of ***Bend the Curve*** goals
- Check metrics against project selection criteria:
 - Number of customers impacted (future state should positively impact more),
 - Intradepartmental coordination improvement (reduction of duplication or redundancy),
 - Improved service (increased capacity, better quality, services delivered more quickly),
 - Dollars saved (reduced time, materials, processing),
 - Improved efficiency.

Worksheet: Identifying Worksite Wastes

Purpose: The purpose of this task is to recognize the 8 Wastes in our daily work, and to apply Lean Concepts that are effective in reducing or eliminating them.

Method: To be specified by Continuous Improvement Practitioners/Facilitators

Task: Walk your worksite (Gemba) and on the following page -

- 1) Identify 5 forms of Waste in your worksite.
- 2) Name the waste you see.
- 3) Select one or more Lean Concepts to improve this step/eliminate the wastes identified.



Worksite Waste - Information Form

Observed Waste	Which of the '8 Wastes'?	Lean Concept(s) for Improvement



Worksheet: Future State Mapping

Purpose: The purpose of this task is to create a future state process map that applies Lean principles, moves the State of Maine towards its BTC goals, and motivates individual and team commitment and enthusiasm.

Task:

- Thinking outside the box, we're going to create a Future State Map.
- We are first going to look at the overall flow. Then, starting at the beginning of the process, evaluate each step in the current state map, including the measurements that might indicate a problem and/or need for change.. Determine if the step can be eliminated, reduced, or integrated with other steps.
- Using the green data sheets, build the future state while reducing the non-value-added activities identified during the current state mapping.
- Keep in mind the *Eight Wastes* and the *Lean Concepts* to evaluate your transformation from the Current to Future State. Apply them wherever appropriate.
- Focus first on no-cost, low-cost fixes that can be implemented immediately. Then include those that will take more analysis and more time to implement.
- As you build the future state, use pink *Post-its* on each step, as needed, to highlight any ideas, concerns, need for more information or clarification, additional study, more potential resources, etc.
- If a change is large, external, or complex enough for a team to meet for a day or more in order to solve the problem, identify that by using a red Kaizen burst sheet. (This change/improvement will be addressed as a separate, special rapid improvement intervention.)
- Review the blue Post-It notes we wrote earlier to make sure we don't miss any of the ideas we generated during the Current State mapping.
- The role of every team member is to support each other to make assumptions explicit (and document them on the flipchart) and to challenge our current thinking wherever appropriate. Remember to attend to our process norms.
- We will create the Future State Map right under the Current State Map.
- We have _____ (time) to complete this task.



VSM Worksheet: Implementation Plan

Purpose: The purpose of this task is identify those activities necessary to move from the Current State to the Future State that you just mapped. Here, Lean principles are applied directly to the wastes identified, and specific actions are planned and assigned. Activities included on the Plan should be able to be accomplished in a minimum of time (preferably within a few weeks).

Task:

- Develop an Implementation Plan that includes:
 - Specific recommendations/actions.
 - Completion dates.
 - Responsible individuals.
 - Measures for improvement.
 - Perceived barriers or challenges.
- Using the ideas that were captured on the Blue/Pink Post-Its, we will build an Implementation Plan to move us from the Current State to the Future State.
 - Keep in mind the *Lean Concepts* to evaluate your transformation from Current to Future State. Apply them wherever appropriate.
 - In developing the plan, review the *Questions to Consider in Developing the Implementation Plan* on the following page.
 - Focus on no-cost, low-cost fixes that can be implemented immediately first. Then include those that will take more analysis and more time to implement.
 - Enter Kaizen/rapid improvement events as activities on the Implementation Plan in order to assure that they are addressed.
- Include the infrastructure, activities, and tasks needed to ensure that the plan itself will be well-managed, will be dynamic, and will be implemented in a timely way.
- Include follow-up with the Continuous Improvement Practitioners/Facilitators as a line-item(s) on the Implementation Plan.
- When complete, the Implementation Plan is given to the Team for follow-through.

Questions to Consider in Developing the Implementation Plan

- ❑ What are the changes being proposed?
- ❑ Which changes should be implemented first?
 - Which problems/changes are priorities for OIAS? For the customer/client?
 - Which changes address key organizational goals?
- ❑ What specific actions/activities must be taken to bring them about successfully?
- ❑ How will the changes be implemented?
- ❑ Who is the staff person responsible for implementing each change successfully – who has the commitment, authority, influence, and time to assure implementation, to remove barriers to change?
- ❑ What are the measures needed to determine if the changes are successful? To determine if they're actually improvements?
 - How will it be determined if the changes are seen as actual improvements by the client, the federal program(s), and by staff?
- ❑ How will input from clients, staff, and external sources be obtained regarding possible improvements, best practices, etc.
- ❑ How will any adjustments be made to the proposed changes if they are found not to work or to be actual improvements after all.



VSM Implementation Plan

CHANGE	RECOMMENDED ACTIONS / ACTIVITIES	G/O	RESP. PERSON	DATE DUE	DATE COMP.	PERCEIVED BARRIERS / CHALLENGES	EST. GAINS / OUTCOMES	EST. DAYS SVD/YR	EST. \$ SAVED /YR	ACTUAL GAINS



What's Next ?

Once you and the rest of the VSM team have finished the VSM mapping process, what should you plan on and expect ?

A. VSM Follow-up Activities.

There are a number of follow-up activities that, depending on the nature of your work and role, you should expect to be a part of:

- Rapid Improvement Events (RIE): If your VSM process identifies any specific problem/issue areas that must be addressed in order to improve your process, you might expect to be a part of a rapid improvement event team if you are involved in the work itself.
- 30/60/90-Day/Monthly Reviews & Reports: The Implementation Plan for making changes/improvements should include at least 30, 60, and 90-day (and beyond as indicated) status checks on the progress of the actions/change implementations planned. Any changes to the plan, whether in activities/tasks, responsible persons, or timelines should be documented, described, and agreed to by the Team, including the Sponsor and Manager. The status reports should be distributed routinely to all Team members.
- VSM Team Checkpoint: Expect the VSM Team to get back together to checkpoint the direction of the future state, its implementation status, and any emerging issues/problems. Generally, based on the time frames in the VSM Implementation Plan, the initial checkpoint can be scheduled in advance as one of the last things the VSM Team does. This way the whole group is still together and can agree on the checkpoint meeting date and time.
- Special Team Sessions: It is possible that a special session of the Team might need to be called by the VSM Sponsor or Manager.

If you think you've somehow slipped out of the loop, double-check with your VSM Manager to make sure that communication and implementation channels are functioning properly.

B. Participate as an active member of the change implementation team.

As a member of the VSM Team, you will also be a member of the group responsible for implementing the changes the team identified for improving your process. This means that you should not only help to literally carry out the work, but also stay informed, keep track of the progress being made, make sure you see and read all the deliverables (map of your current process, the ideal process proposed, the implementation plan, status reports, etc.), and above all continue to *challenge the process*.

C. Start all over again – continually improving, always striving for excellence, seeking perfection.

The new improved process will, of course, become your “current” process. And you will once again want to improve it – to continue to try to make it better and better. Remember that you are in the key position to know the work and how it can be improved !



Appendices



FUTURE STATE MAP AND FINAL DATA CALCULATIONS --

- ◆ For each idea for small incremental improvements, use a separate pink Post-It and place it below the green data sheet that it corresponds to.
- ◆ If it is an improvement that will require a team meeting of a day or longer, place a big red Kaizen Burst, with the idea written on it, under the appropriate green data sheet.

Future State Data Calculations –

1. To collect the data for the Future State, do the same steps (1 through 6) as you did for the current state map.

Final Data Calculations--

1. Subtract the Future State Lead Time from the Current State Lead Time and write it on the Map at the end using a marker and label it **Lead Time Reduction.**
2. Subtract the Future State NVA from the Current State NVA and write it on the Map at the end using a marker and label it **NVA Reduction.**
3. Subtract the Future State number of steps from the Current State number of steps and write it on the Map at the end using a marker and label it **Step Reduction.**

COMPLETING THE VSM IMPLEMENTATION PLAN --

Value Stream Map Plan (Excel Spreadsheet)

1. Write the Name of the Process you are working on at the top of the spreadsheet.
2. Write all the ideas from the pink Post-Its and the Kaizen Bursts from the Future State Map in the "Recommendation" column.
3. Select a Responsible Person for each Recommendation and add to Plan.
4. Select a Due Date for each Recommendation and add to Plan – Remember that the due date is not necessarily the date the change will be complete. It may be the date the evaluation of the recommendation is complete.
5. Fill in the Estimated Gains (Est. Gains) for each Recommendation:
 - a. The change in time from the current state step to the future state step
 - b. Any gains from material reduction – paper, printer ink, etc
 - c. Any gains from reduction in postage, envelopes, etc
 - d. Any gains from reduction of forms used, etc
6. Fill in the estimated days (or hours) saved per year (SVD/YR)
7. Fill in the estimated dollars saved per year (\$ SAVED/YR)
8. Total estimated Gains, Days Saved and Dollars Saved columns.

Note: This initial plan will be reviewed with the Sponsor, VSM Manager, and the team for recommendation approvals, prioritization, and resource commitments, if necessary. It will also be distributed to the Caucus Team Members. This plan will be managed and updated by the Value Stream Manager as the team moves the process from current to future state.



VSM Summary Statistics

Process Name:		Future State	
Current State		Future State	
Steps =	0	Steps =	0
Lead Time (all C-T) =	0	Lead Time (all C-T) =	0
Value Added Time (V-A) =	0	Value Added Time (V-A) =	0
Non-Value Added (NV-A) =	0	Non-Value Added (NV-A) =	0
Time Associated With Inventory =	0	Time Associated With Inventory =	0
Steps in process that require more focus on inventory		Steps in process that require more focus on inventory	
Change Over Time (C-O-T) =	0	Change Over Time (C-O-T) =	0
Steps in process that require more focus on amount COT		Steps in process that require more focus on amount COT	
Up Time (U-T) =		Up Time (U-T) =	
Steps in Process that have a low Up-Time, requiring more focus		Steps in Process that have a low Up-Time, requiring more focus	
First Pass Yield (FPY) =		First Pass Yield (FPY) =	
Steps in the process that have low First-Pass yield, requiring more attention.		Steps in the process that have low First-Pass yield, requiring more attention.	
Staff Time =	0	Staff Time =	0
Unit Cost =	\$0	Total Cost =	\$0
Per Minute Staff Cost = \$	0.58	Total Savings Current vs. Future =	\$0
		Number of Units Per Year	
		Yearly Savings =	\$0
		Other Savings =	\$
		Total Savings =	\$0

NAME OF THE STEP	
STEP DESCRIPTION	
SPECIAL CONSIDERATIONS	
WORK WAITING for this Step	
C-T CYCLE TIME	
# OF PEOPLE	
S-T TOTAL STAFF TIME	
V-A VALUE ADDED %	
R-N-V-A REQUIRED NON-VALUE-ADDED %	
C-O CHANGE OVER TIME	
U-T UP TIME %	
F-P-Y FIRST PASS YIELD	
NOTES:	



BTC/Departmental Goals & Objectives

DHHS Goals

1. Protect and enhance the health and well-being of Maine people.
2. Promote independence and self sufficiency.
3. Protect and care for those who are unable to care for themselves.
4. Provide effective stewardship for the resources entrusted to the department.

DHHS Outcomes

- A. High Performing Staff
- B. Excellent Provider Partnerships
- C. Integrated Services
- D. Superior Customer Service
- E. Efficient and Effective Administration



Intervention Process: My Experience & Suggestions

Name (Optional): _____ Date: _____

Title/Position: _____ Process Name: _____

1. This intervention process helped me to look at my work in a different way & think outside the box. *(circle the appropriate number)*

Disagree ← 1 2 3 4 5 6 7 → *Agree*

2. I feel that my knowledge and opinions about my work were heard.

Disagree ← 1 2 3 4 5 6 7 → *Agree*

3. What do you think worked well in this intervention and planning process?

4. What do you think could be improved? _____

5. Are you interested in --

Learning more about Lean and *Bend the Curve*? _____

Participating in other Lean/*Bend the Curve* activities? _____

6. Any Other Comments? _____

